

Afrotropical Asilidae (Diptera) 19.
New species and records of *Synolcus* Loew, 1858
and *Gibbasilus* Londt, 1986 (Apocleinae)

by

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ABSTRACT

Three new species of *Synolcus* Loew, 1858 are described; *S. amnoni* (South Africa: Natal), *S. argentinus* (South Africa: Richtersveld, and southern Namibia), and *S. malawi* (southern Malawi). The latter species extends the range of the genus far further north than previously published information indicated. Two new species of the previously monotypic genus *Gibbasilus* Londt, 1986, *G. brevicolis* and *G. centrolobus* both from the Cape Province, South Africa, are also described. New Natal Museum records of *Synolcus* and *Gibbasilus* species and new keys to the species are provided.

INTRODUCTION

Londt (1980) revised the genus *Synolcus* Loew, 1858 and provided a key for the separation of the six known species. Londt (1986) described the monotypic apocleine genus *Gibbasilus*. Continued research has yielded an additional three undescribed species of *Synolcus* and two of *Gibbasilus*. These are described here and new keys provided to include them.

MATERIALS AND METHODS

All specimens studied were dry-mounted on pins. Male genitalia are important for species discrimination, and detailed drawings (using a drawing-tube attached to a Wild M5 stereomicroscope) were executed after first removing the terminal segments of the abdomen and clearing them in hot potassium hydroxide. Genitalia so treated were stored temporarily in small plastic vials containing a mixture of ethanol and glycerine, until completion of the study when they were permanently mounted in Canada Balsam on small strips of transparent cellulose. Each cellulose strip was then pinned below the appropriate specimen. Abbreviations used for repositories are BM = The Natural History Museum, London, UK; KMT = Koninklijk Museum Voor Midden-Africa, Tervuren, Belgium; NM = Natal Museum, Pietermaritzburg, South Africa; SMW = State Museum, Windhoek, Namibia.

TAXONOMY

Synolcus Loew

Synolcus Loew, 1858:362 (see also Loew, 1860:147). Type-species: *Asilus dubius* Macquart, 1846, by designation Hull, 1962:524.

Key to the species of *Synolcus*

The following key is adapted from Londt (1980) to include the three new species described below. The user should also consult illustrations of genitalia as published by Londt (1980).

- 1 Wings with an apical crossvein between R_1 and costa (Fig. 2) 2
- Wings without this crossvein 4
- 2 Apex of wing fairly uniformly shaded (including cell r_5 ; mystax predominantly black in upper part; male genitalia as in Figs 14–17 **malawi** sp. n.
- Apex of wing shaded only anterior of cell r_5 ; mystax predominantly white in upper part 3
- 3 Male abdomen strongly silver pruinose; male genitalia as in Figs 9–12 **argentius** sp. n.
- Male abdomen silver-gold pruinose; male genitalia as illustrated in Londt (1980) **acrobaptus** (Wiedemann)
- 4 Male 5
- Female 10
- Note: females of amnoni have yet to be collected.*
- 5 Clasper tapering to an acute tip; sternum 8 with a well-developed tuft of setae on distal margin; wing with clearly dilated costal margin 6
- Clasper with broadly rounded tip; sternum 8 without tuft of setae; wing only slightly dilated 7
- 6 Maximum length of clasper more than twice as great as maximum width in lateral aspect, and equipped with a tuft of yellow setae ventrally near the tip; femora usually yellow with black markings **dubius** (Macquart)
- Clasper broadly triangular in lateral aspect, less than twice as long as wide and not equipped with any yellow setae ventrally; femora entirely dark shiny red-brown with at most slightly paler tips **aurulentus** Engel
- 7 Clasper with short stout spine-like black setae on inner distal tip **spinosus** Londt
- Clasper without short spine-like black setae on inner distal tip 8
- 8 Clasper with distal tip downturned **minor** (Bromley)
- Clasper more or less straight 9
- 9 Sternum 8 trifurcate distally; aedeagus with very long sinuous tip (Fig. 8) **amnoni** sp. n.
- Sternum 8 not trifurcate distally; aedeagus with shortish, downturned, slightly sinuous tip **griseus** Engel
- 10 Maximum length of ovipositor at least three times as great as minimum breadth in lateral aspect; femora usually yellow with black markings **dubius** (Macquart)
- Maximum length of ovipositor at most two and a half times as great as minimum breadth in lateral aspect; femora entirely dark red-brown to black with at most slightly paler tips 11
- 11 Scutellum and entire mesonotum red-gold pruinose **aurulentus** Engel
- Scutellum and posterior region of mesonotum silver pruinose **griseus, spinosus, minor** and probably **amnoni**

Synolcus ammoni sp. n.

Figs 1, 5–8

Etymology: Named after Dr Amnon Freidberg, collector of the holotype.

Description: Holotype ♂, SOUTH AFRICA, *Natal*: 'Vernon Crookes N. R. [= Nature Reserve] [30°18'S:30°40'E], 3030BC, 10.x.1983, A Freidberg' (NM). NM Type No. 14.

Head. Antennal segments; proportionate lengths (segment one taken as 1,0) 1,00 0,71 1,21 0,21 0,93; dark red-brown to black; setae all black. Width of head across eyes to width of face as 10:2,5. Face dark red-brown to black, gold pruinose; mystax white centrally above lower facial margin, black laterally and extending above white bristles to antennal bases. Occipital setae black, proclinate dorsally; moderately long black and yellow centrally; longish thin white ventrally. Proboscis and palpi dark red-brown to black.

Thorax. Pleura and mesonotum dark red-brown to black, gold pruinose; katatergal setae (ktg s) yellow; metanepisternal setae (mtanepst s) fine yellow. Dorsal bristles: acrostichals (acr) short black, not well developed; dorsocentrals (dc) black, about 11 pairs, better developed postsuturally; postpronotal setae (prn s) yellow; 2–3 black notopleurals (npl); 5 black supra-alars (spal); 2–3 black post-alars (pal); 2 black marginal scutellars. Wing: 9,3 × 3,7 mm; venation as in Fig. 1, costal margin slightly expanded, c-r crossvein absent, maximum length to minimum breadth ratio of discal cell 24:1. Halteres red-brown. Legs: femora dark red-brown to black anteriorly and dorsally, brown-yellow posteriorly and ventrally; tibiae mostly brown-yellow but dark red-brown anterodistally; tarsi dark red-brown to black; bristles of hind femur black except for a yellow ones postero-proximally, accompanied by a few long shiny yellow setae and many tiny yellow setae; metathoracic coxae with 1 pale yellow lateral bristle accompanied by a few longish pale white setae.

Abdomen. Dark red-brown to black, hind margins red-brown; terga fairly uniform fine gold pruinose; sterna similar to terga; terga with 2–3 yellow marginal bristles and shortish yellow setae; sterna with longish yellow setae. Genitalia as in Figs 5–8; S8 trifurcate; aedeagus long sinuous.

Paratypes. None. ♀ unknown.

Remarks: The species is unique in the form of the male genitalia.

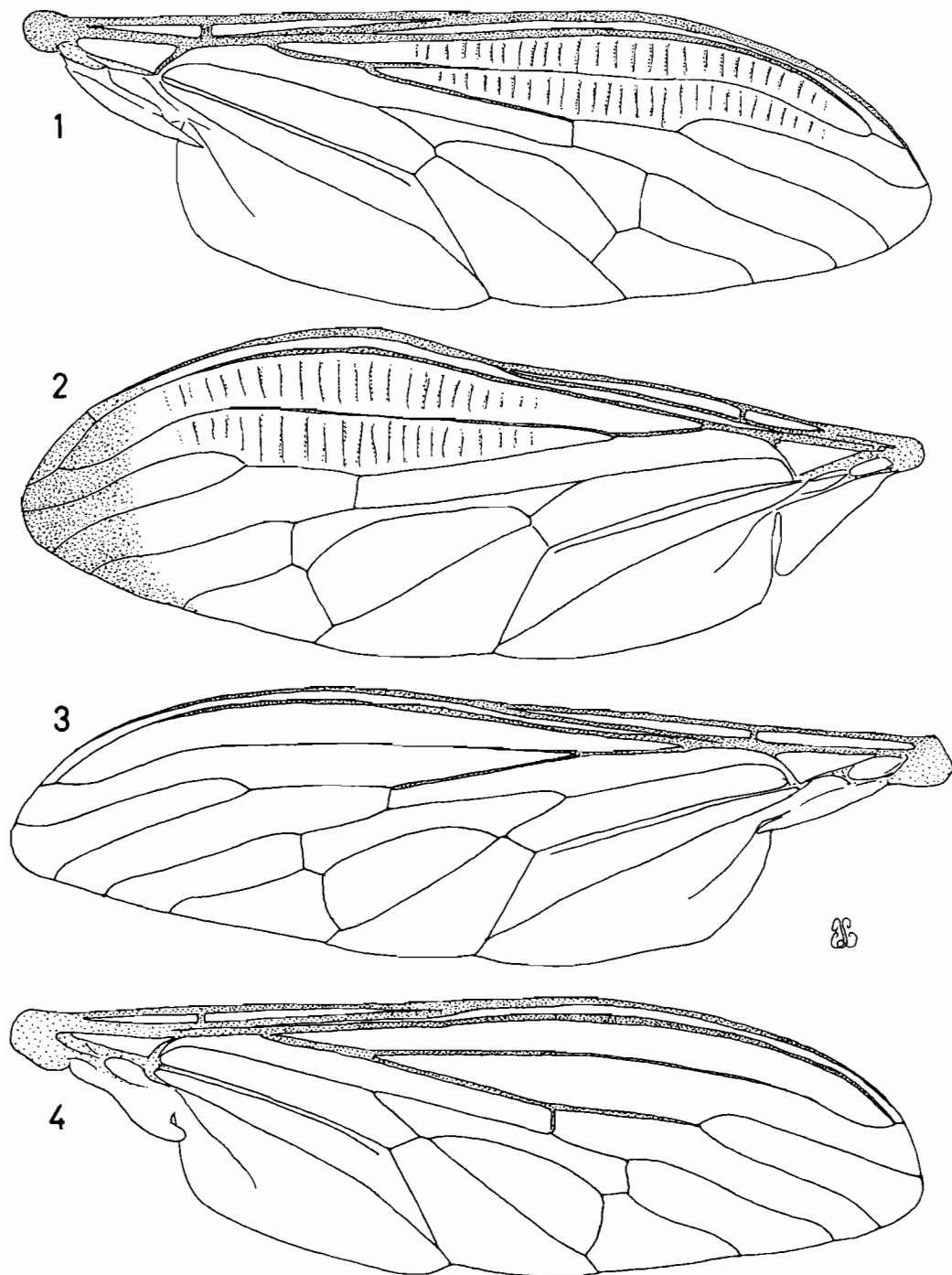
Synolcus argentius sp. n.

Figs 9–13

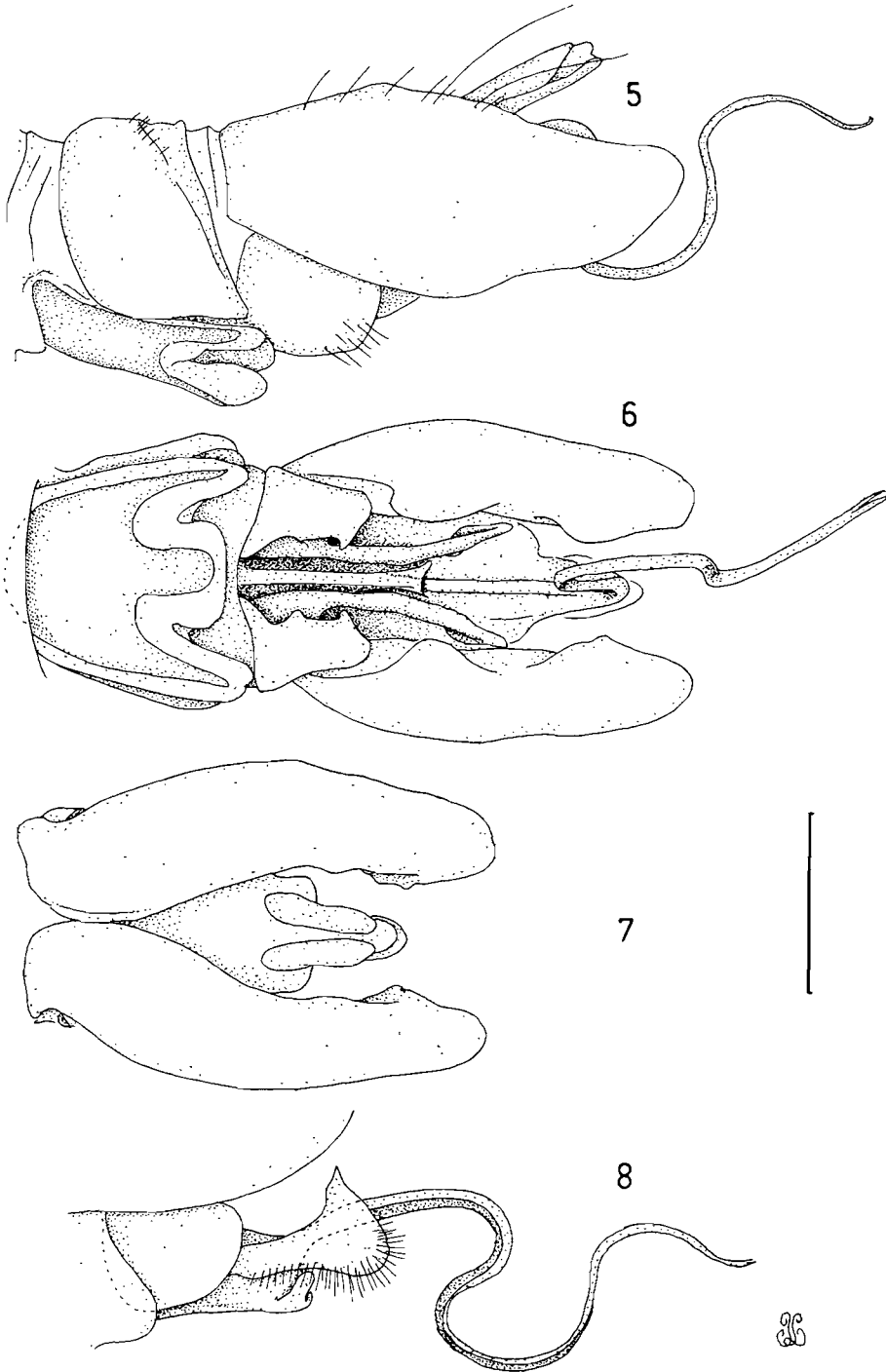
Etymology: *L. argentius* = silvery. Refers to the silvery abdominal pruinosity so evident in males of the species.

Description: Holotype ♂, SOUTH AFRICA: *Cape Province*: '5 km NE Grootderm, near Orange River, 28°31'S:16°38'E, 50 m, 1.ix.1989, Londt, Croeser & Stuckenberg, Sandy W slopes with euphorbia shrubs' (NM). NM Type No. 15.

Head. Antennal segments; proportionate lengths (segment one taken as 1,0) 1,00 0,75 1,80 0,20 0,90; dark red-brown to black; setae all black. Width of head across



Figs 1-4. Wing venation. 1-2. *Synolcus* species. 1. *S. amnoni* sp. n. 2. *S. malawi* sp. n. 3-4. *Gibbasilus* species. 3. *G. brevicolis* sp. n. 4. *G. centrolobus* sp. n.



Figs 5-8. *Synolcus amnoni* sp. n. holotype male genitalia. 5. Lateral. 6. Ventral. 7. Dorsal aspect of epandrial lobes. 8. Lateral aspect of aedeagus and style. Scale = 1 mm.

eyes to width of face as 10:2,2. Face dark red-brown to black, silver pruinose; mystax white with *ca* 4 black bristles centrally. Occipital setae black and proclinate dorsally; moderately long black and white centrally; longish thin white ventrally. Proboscis and palpi dark red-brown to black.

Thorax. Pleura and mesonotum dark red-brown to black, silver-gold pruinose; ktg s and mtanepst s white. Dorsal bristles: acr 4 pairs, black, postsuture; dc black, about 5 pairs, postsuture; pprn s short black and white; 2 black npl; 2 black spal; 2 black pal; 2 black marginal scutellar bristles. Wing: $7,6 \times 2,7$ mm; venation similar to *acrobaptus*, costal margin somewhat expanded, c-r crossvein present, maximum length to minimum breadth ratio of discal cell 23:1. Halteres brown-yellow. Legs: dark red-brown to black except for pro- and mesothoracic tibiae which are predominantly brown; bristles of hind femur pale yellow-white except for a two black ones distally, accompanied by a few long shiny white setae dorso-proximally and many tiny white setae; metathoracic coxae with 3 white lateral bristles accompanied by a few short white setae.

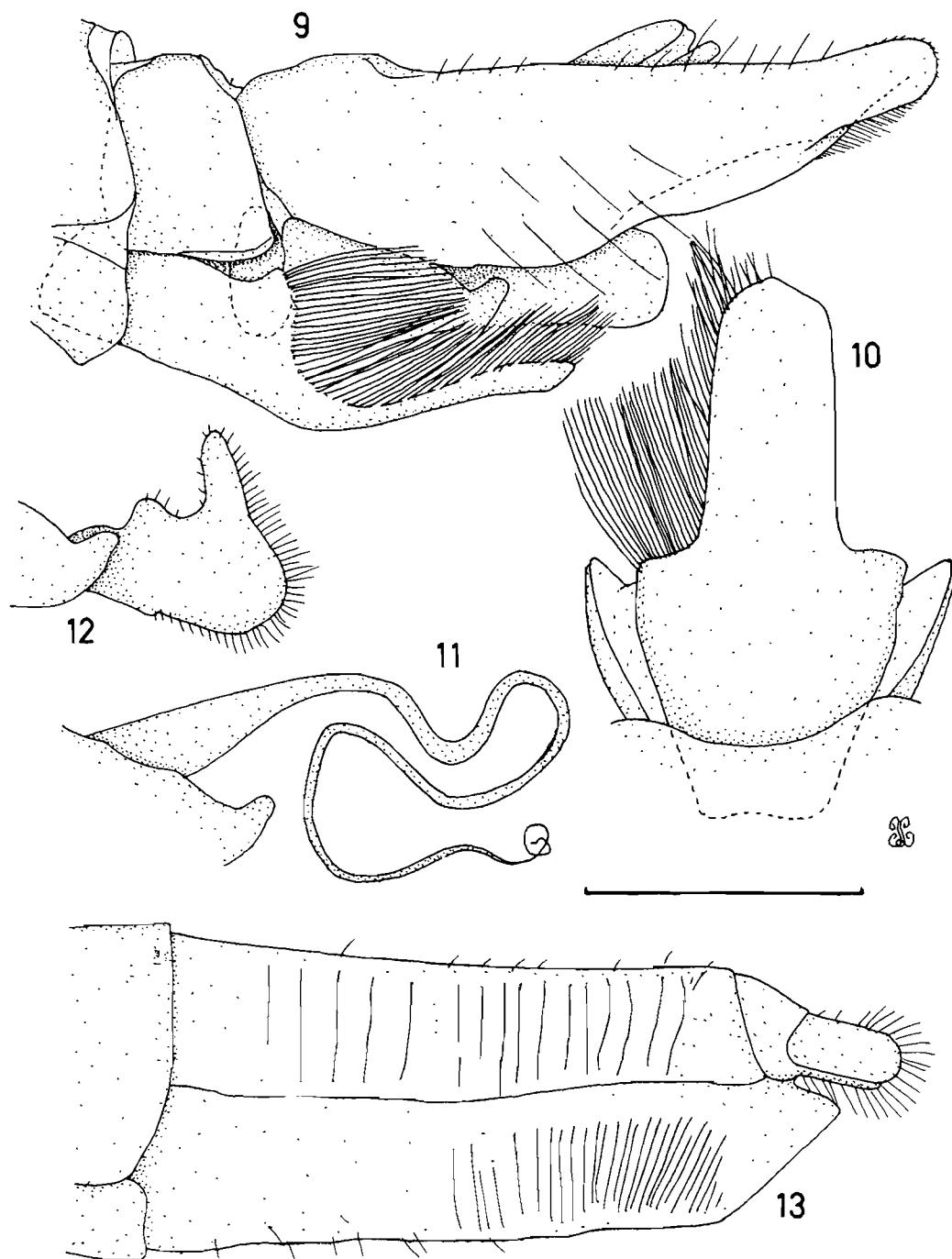
Abdomen. Dark red-brown to black, terga fairly uniform fine silver pruinose; sterna similar to terga; terga with 1-2 rather weak white marginal bristles and short black and white setae; sterna with short black and white setae. Genitalia as in Figs 9-12.

Paratypes. SOUTH AFRICA: *Cape Province*: 1 ♂ 9 ♀, same locality data as holotype (NM); 3 ♂ 3 ♀, 1 km N Kuboes, $28^{\circ}30'S:16^{\circ}38'30"E$, 1.ix.1989, Londt Croeser & Stuckenberg, 500 m, rocky hillside with succulents and flowers (NM, BM); 3 ♀, Richtersveld, 1 km E Grootderm, 2816DA, 2.ix.1983, Londt & Stuckenberg, foot of small hill (NM). Paratypes agree well with holotype. ♀ abdomen not as clearly silver pruinose as ♂; ovipositor (Fig. 13) length : breadth ratio (in lateral aspect) 2,7:1, laterally flattened as in other species.

Remarks: A species very closely similar to *S. acrobaptus* but males with obvious silver pruinose abdomen and consistent differences in genitalia. Perhaps the most important differences are i. the aedeagus is highly convoluted, ii. the gonostyle is very broad and has a sub-basal bump dorsally, iii. S8 has a wide midcentral lobe (narrow in *acrobaptus*), iv. distolateral corners of T8 are pointed and jut outwards.

In 1980 I misidentified 2 ♂ and 2 ♀ from four separate localities in southern Namibia (the males in rather poor condition) as *S. acrobaptus*. These specimens belong to this new taxon. The Namibian records are as follows: 1 ♀, Barby 26, Bethanie, 2-7.x.1972, Strauss Coetzee & Penrith (SMW); 1 ♀, Churutabis 108, Bethanien, 4-12.x.1972, Mokgoabone *et al* (SMW); 1 ♂, Riverside 135, Bethanie, 23-26.x.1971, Penrith Coetzee & Olivier (SMW); 1 ♂, Namuskluft 88, 7-15.x.1970, Penrith & Coetzee (SMW). These specimens have no type status.

Synolcus species are usually associated with thick vegetation (forests or woody macchia). The *S. argentius* specimens listed above were captured in rather arid places. The locality 5 km NE of Grootderm is a sand dune with isolated dead and living euphorbia bushes. The specimens were resting on the ground on the sunny side of these bushes. It is suggested that the oviposition site may be the dry twigs of dead euphorbia bushes.



Figs 9–13. *Synolcus argentius* sp. n. genitalia. 9–12. Holotype male. 9. Lateral. 10. Ventral view of S8. 11. Lateral aspect of aedeagus. 12. Lateral aspect of gonostyle. 13. Paratype female ovipositor. Scale = 1 mm.

***Synolcus malawi* sp. n.**

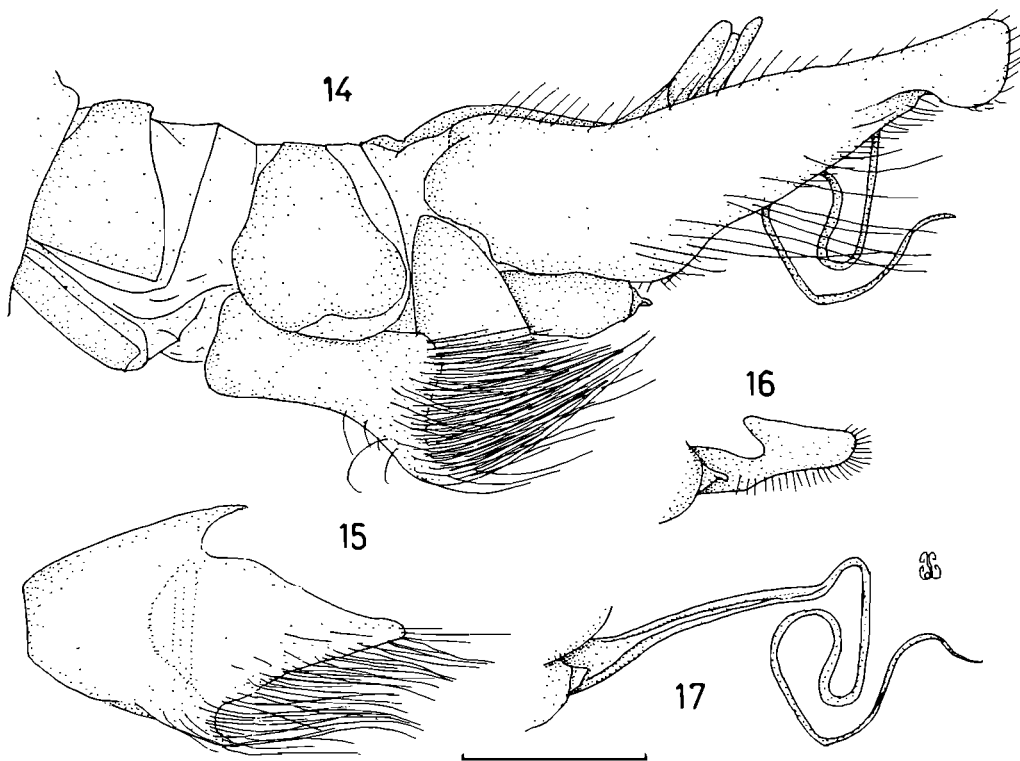
Figs 2, 14–17

Etymology: Named after Malaŵi, the country of origin.

Description: Holotype ♂, MALAŴI: 'Lichenya Plateau [15°59'S:35°32'E], 2 000 m, 4/21.xi.1981', 'Coll. Mus. Tervuren, Malaŵi South. Reg. Mount Mulanje, xi.1981.—R. Jocqué' (KMT).

Head. Antennal segments; proportionate lengths (segment one taken as 1,0) 1,00 0,85 1,60 0,25 1,10; dark red-brown to black; setae all black. Width of head across eyes to width of face as 10:2,2. Face dark red-brown to black, gold-silver pruinose; mystax white centrally above lower facial margin, black laterally and extending above white bristles to antennal bases. Occipital setae black and proclinate dorsally; moderately long black centrally; longish thin white ventrally. Proboscis and palpi dark red-brown to black.

Thorax. Pleura and mesonotum dark red-brown to black, silver-gold pruinose; ktg s black ventrally, yellow dorsally; mtanepst s mixed yellow and white. Dorsal bristles: acr short black, not well developed; dc black, about 10 pairs, better developed postsuturally; pprn s yellow, moderately long; 2 black npl; 2 black spal;



Figs 14–17. *Synolcus malawi* sp. n. paratype male genitalia. 14. Lateral. 15. Ventral aspect of S8. 16. Lateral aspect of style. 17. Lateral aspect of aedeagus. Scale = 1 mm.

3 black pal; 2 black marginal scutellar bristles. Wing: $7,6 \times 3,3$ mm; venation as in Fig. 2, costal margin somewhat expanded, c-r crossvein present, maximum length to minimum breadth ratio of discal cell 50:1 (ie. greatly constricted). Halteres brown-yellow. Legs: dark red-brown to black except for tibiae which are largely brown; bristles of hind femur pale yellow except for a few black ones distally, accompanied by a few long shiny white setae and many tiny white setae; metathoracic coxae with 2 pale yellow lateral bristles accompanied by a few longish white setae.

Abdomen. Dark red-brown to black, terga fairly uniform fine silver-gold pruinose; sterna similar to terga; terga with 2–3 weak pale yellow-white marginal bristles and short setae (white laterally, black dorsally); sterna with longish white setae. Genitalia as in Figs 14–17.

Paratypes. 2 ♂, same locality data as holotype but dated '25.xi.1981' and '5/24.xi.1981' respectively (KMT NM). NM Type No. 16. Paratypes agree well with holotype although one is somewhat larger (wing length 10,0 mm). ♀ unknown.

Remarks: The type-specimens are not in perfect condition. The wings are rather twisted and the specimens show other signs typical of specimens mounted onto pins after preservation in alcohol. The material is, however, of considerable interest as this is the first record of the genus north of South Africa. The possession of a c-r crossvein suggests that this species is related to *S. acrobaptus* (Wiedemann) and *S. argentius* sp. n. recorded from the south-western Cape Province of South Africa and southern Namibia.

New Natal Museum records for *Synolcus* species

Synolcus acrobaptus (Wiedemann, 1828)

New Records: SOUTH AFRICA, *Cape Province*: 1 ♀, Nieuwoudtville Wild Flower Res., 3119AC, 16.xi.1986, Londt & Quickelberge, 690 m; 4 ♀, Graaff-Reinet, Urquhart Park Caravan Park, 32°15'S:24°33'E, 4–6.xii.1988, J. G. H. Londt, riverine veget. sandy ground; 4 ♂ 2 ♀, Gydo Mts., 24 km NE of P. Alfred Ham., 3319AB, 21.xi.1986, Londt & Quickelberge, 1 150 m, Rocky area / Proteas; 3 ♂ 2 ♀, Worcester Karoo Botanic Gardens, 3319CB, 1–2.i.1983, Miller & Stabbins; 1 ♂, 15 km S Villiersdorp, [33°59'S:19°17'E], 28.xii.1983, D. J. Brothers; 2 ♂ 1 ♀, 18 km NE Touwsrivier, Jan de Boers, 3320AC, 20.xi.1986, Londt & Quickelberge, 1 000 m, rocky area nr fields; 3 ♂ 2 ♀, 3 km S Prince Albert, 3322AA, 10.xi.1986, Londt & Quickelberge, Oukloof Sand / Acacias; 3 ♀, Meiringspoort, 3322BC, 11–12.xii.1979, Londt & Stuckenberg, rocky hillside & stream edge; 1 ♀, Diepkloof, ca 20 km E De Rust, 3322BD, 12.xii.1979, Londt & Stuckenberg, dry rocky hillside & stream; 2 ♂ 3 ♀, Uniondale, 3323CA, 12.xii.1979, Londt & Stuckenberg, steep hillside macchia; 1 ♀, Kommetjie, hill overlooking town, 34°08'S:18°19'E, 13.xii.1988, J. G. H. Londt, macchia sandy ground & rocks; 1 ♀, Brenton on Sea, 3423AA, 10.xii.1979, Londt & Stuckenberg, dune & hillside vegetation.

Synolcus aurulentus Engel, 1929

New Records: SOUTH AFRICA, *Cape Province*: 5 ♂ 2 ♀, Outeniqua State Forest near Knysna, 3323CC, 29.i.1984, D. & C. Barraclough, forest & forest margins; 1 ♀, Alexandria Forest Reserve, 3326DA, 28.xii.1985, J. & B. Londt, forest & forest margins; 4 ♂, Diepwalle Knysna area, 34°00'S:23°00'E, 26.xii.1988, J.G.H. Londt, forest & forest margin; 1 ♂, Plettenberg Bay area, Robberg, 34°03'S:23°22'E, 8.xii.1988, J.G.H. Londt, on tall shrubs in Nat. Reserve; 1 ♂ 1 ♀, Franskraal, 3419CB, 5 km ESE Gansbaai, 7–9.i.1983, R.M. Miller, Malaise trap, dunes; 8 ♀, Knysna Forest, 3423AA, 9.xii.1979, Londt & Stuckenberg, Diepwalle forest & margin; 3 ♂ 5 ♀, Tsitsikamma forest nr. Storms river, 3423BB, 7.xii.1979, Londt & Stuckenberg, forest & forest margins; 2 ♂, Port Elizabeth, Cape Recife area, 3425BA, 22–27.xii.1985, J.G.H. Londt, reserve.

Synolcus dubius (Macquart, 1846)

New Records: SOUTH AFRICA, *Transvaal*: 1 ♀, Modjadji Nat. Res. 23°38'S 30°20'E, 13–14.i.1987, C.D. Eardley; 1 ♂, Illovo, JHB [Johannesburg—26°12'S: 28°05'E], 26.x.1985, D.A. Webb. *Natal*: 1 ♀, Ndumu Game Reserve, 2632DC, 4–9.x.1982, J.G.H. Londt, camp & riverine bush; 3 ♂ 2 ♀, Kosi Bay Nature Reserve, 2632DD, 30.xi.–2.xii.1982, Londt Barraclough & Stuckenberg, forest & open woodland areas; 1 ♂, Kakaheli Forest, ca 5 km NE Mangusi, 2632DD, 30.xi.–2.xii.1982, Barraclough Londt & Stuckenberg, forest; 1 ♀, Ngome [27°52'S:31°24'E], 202 ♀ midday 3.i.1981, prey of 201 ♀ (ie. *S. minor*); 3 ♂, Mseleni, 2732BC, 29.xi.1982, Stuckenberg Barraclough & Londt, woodland/sandy area; 1 ♂ 2 ♀, Royal Natal National Park [28°41'S:28°59'E], 6–10.xii.1984, J.G.H. Londt, riverine bush montane slopes; 1 ♂ 1 ♀, Enseleni Reserve, Empangeni dist. [28°41'S:32°03'E], 8.x.1983, B.R. Stuckenberg, flowering meadow; 2 ♀, Entumeni Nature Reserve, 16 km W Eshowe, 2831CD, 26.i.1980, R. Miller & P. Stabbins, indigenous forest, 670m; 4 ♂ 1 ♀, Ntumeni Forest, 2831CD, 6.x.1983, Freidberg; 5 ♂ 3 ♀, Ntumeni Forest, Eshowe dist. [28°53'S:31°19'E], 6.x.1983, B.R. Stuckenberg; 1 ♀, Entumeni Nature Res., 28°52'35"S:31°22'54"E, 26.i.1988, J.G.H. Londt, Coast Scarp Forest; 1 ♂ 1 ♀, Umlalazi Nature Reserve, 2831DD, 2–10.x.1982, J.G.H. Londt, dune-forest & edges; 1 ♂, Eshowe, Dlinza, 2850S:3125E, xi.1983, B. Digby, 520m, Mpushini Falls; 1 ♀, St Lucia Nature Reserve, 2832AD, 7.x.1983, A. Freidberg; 1 ♀, St Lucia Nature Reserve, 2832AD, 18–20.xii.1981, Londt & Stuckenberg, coastal bush & forest; 1 ♂, St Lucia Estuary [28°23'S:32°25'E], 7.x.1983, B.R. Stuckenberg, coastal bush, grassland; 1 ♀, 15 km E Mtubatuba, Dukuduku Nature Reserve [28°23'S:32°19'E], 23.ix.1977, D.J. & F.S. Brothers; 1 ♂ 2 ♀, Lake St Lucia, False Bay Park [27°58'S:32°22'E], 9–15.x.1985, J. Manning, thick sand forest; 7 ♂ 6 ♀, Injasuti Nature Reserve, 2929AB, 5–11.xii.1983, J.G.H. Londt, at M/V light trap; 1 ♀, Umgeni Poort Convent, 2929BD, 25–27.iii.1988, A. Whittington, 1550–1610m, In mixed grassland exotic scrub, clear and warm; 1 ♂, Karkloof Nature Res., 29°18'10"S:30°13'40"E, 1260 m, J.G.H. Londt, Mixed *Podocarpus* For. edge; 1 ♂, Karkloof, 2930AB, 19.i.1983, D. Barraclough; 1 ♂,

Karkloof, Geekies farm [29°15'30"S:30°20'40"E], 21.xii.1983, Stuckenberg; 1 ♂, Ferncliffe Forest Res, 29°33'00"S:30°20'30"E, 23.xi.1987, A. Seymour, mistbelt mixed forest; 1 ♀, Ferncliffe Forest Res, 29°33'00"S:30°20'30"E, 23.xi.1987, J.G.H. Londt, mistbelt mixed forest; 1 ♀, Pietermaritzburg, 2930CB, 10.iii.1983, J.G.H. Londt, Town Bush; 1 ♂, Pietermaritzburg, 2930CB, 1.xi.1984, P. Croeser; 1 ♂, Pietermaritzburg, Ferncliff, 22.ii.1988, A.E. Whittington, netted in indigenous forest, hot & humid in deep shade with scattered sun-specks; 1 ♂, Bishopstowe nr Pietermaritzburg, 2930CB, 9.xi.1981, A.I. Seymour; 1 ♂, Clifton Canyon, Gillitts nr Hillcrest, 2930DD, 5.i.1980, R. Miller & P. Stabbins, indigenous forest; 1 ♀, Kloof [2930DD], xii.1987, P.E. Reavell, in swim pool; 1 ♀, Pinetown District, Emberton [29°47'S:30°47'E], 21.xi.1982, J.C. Manning, shady streamside herbs; 1 ♂, Ixopo [30°09'S:30°05'E], 11.xii.1986, L. McGregor, carrying off bee. *Cape Province*: 1 ♂ 4 ♀, Cape Town, Rondebosch [33°58'S:18°28'E], 16–30.xii.1980, B. Lamoral, in garden; 1 ♂, Hogsback, 3226DB, 13–16.xii.1985, J. & B. Londt, forest & forest margins; 1 ♀, Alexandria Forest Reserve, 3326DA, 28.xii.1985, J. & B. Londt, forest & forest margins.

Synolcus minor (Bromley, 1947)

New Records: *SOUTH AFRICA, Natal*: 2 ♂ 4 ♀, Ngome [27°52'S:31°24'E], 25 28 31.xii.1980 & 3.i.1981, variously labelled—'on front lawn', 'on neatly cut front lawn with crane fly prey', 'in open grassland along riverine forest', 'had caught 202 ♀ [*S. dubius*]. There was a struggle but never any doubt—eventually 202 was still. Midday' [all collected R. Meiswinkel but not labelled as such]; 3 ♀, Melmoth Dist., Farm Morgenzon, 28°37'S 31°27'E, 790 & 800 m, C.R. Hurt, 23 31.i. 6.ii.1986, variously labelled 'on mature sugarcane', 'in kikuyu in road bordering pine plantation', 'in medium grass adj sugarcane'.

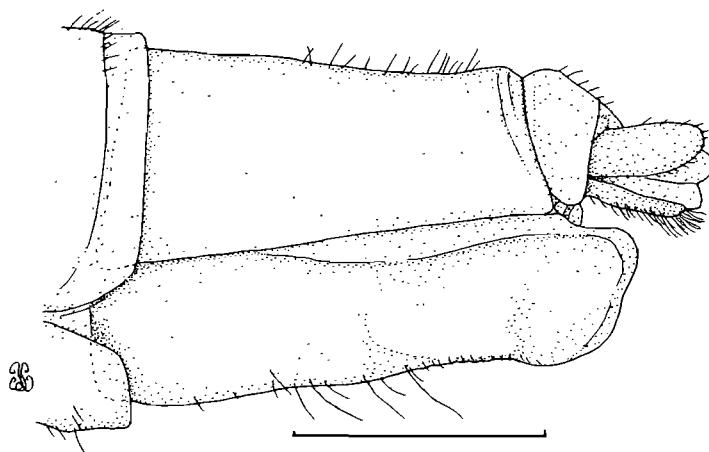


Fig. 18. *Synolcus minor* (Bromley, 1947) lateral aspect of female genitalia.

The female of *S. minor* has not previously been recorded or described. It agrees well with the description of the male and the ovipositor is illustrated here (Fig. 18) for comparison with other females.

DISCUSSION

Synolcus was previously reported to be restricted to southern Africa. With the discovery of *S. malawi* the known distribution has been somewhat extended in a northerly direction. New records for previously known species have added to our knowledge concerning their distributions but have not altered them markedly;

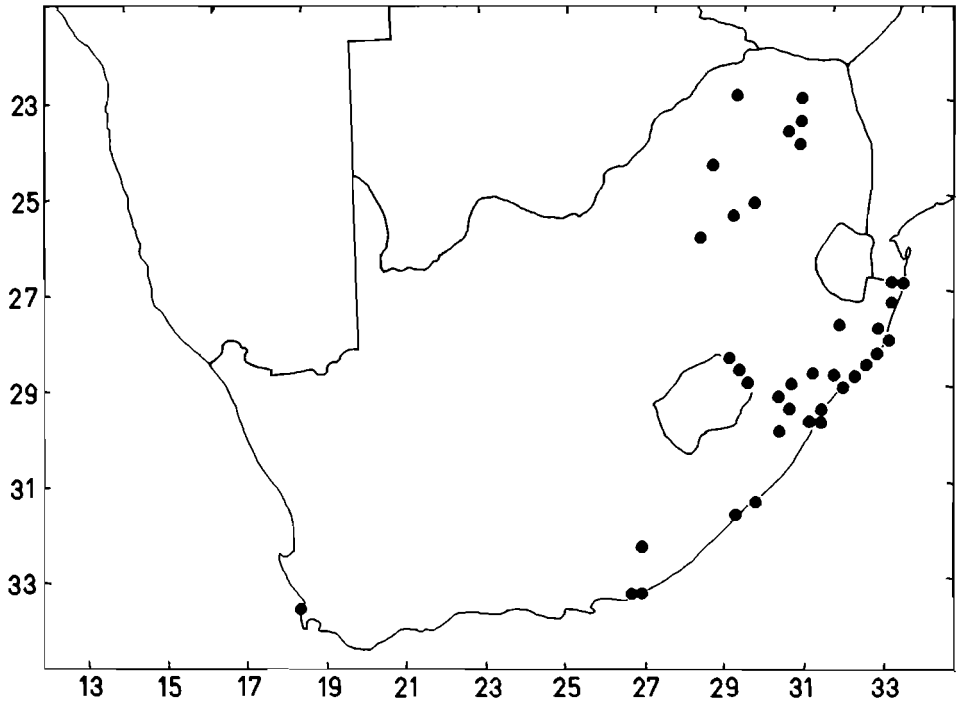


Fig. 19. Distribution of *Synolcus dubius* (Macquart) in southern Africa.

TABLE I

Months (starting with July) during which adults of *Synolcus* and *Gibbasilus* species have been collected.

Species	Months of the year											
	J	A	S	O	N	D	J	F	M	A	M	J
<i>Synolcus</i>												
<i>acrobaptus</i> (Wiedemann)	—	—	—	•	•	•	•	—	•	•	—	—
<i>ammoni</i> sp. n.	—	—	—	•	—	—	—	—	—	—	—	—
<i>argenteus</i> sp. n.	—	—	•	•	—	—	—	—	—	—	—	—
<i>aurulentus</i> Engel	—	—	—	—	—	•	•	—	•	—	—	—
<i>dubius</i> (Macquart)	—	—	•	•	•	•	•	•	•	—	—	—
<i>griseus</i> Engel	—	—	—	—	—	•	•	—	—	—	—	—
<i>malawi</i> sp. n.	—	—	—	—	•	—	—	—	—	—	—	—
<i>minor</i> (Bromley)	—	—	—	—	•	•	•	•	—	—	—	—
<i>spinosus</i> Londt	—	—	—	—	•	—	—	•	—	—	—	—
<i>Gibbasilus</i>												
<i>arenaceus</i> Londt	—	—	•	•	•	—	—	—	—	—	—	—
<i>brevicollis</i> sp. n.	—	—	•	—	—	—	—	—	—	—	—	—
<i>centrolobus</i> sp. n.	—	—	—	—	•	—	—	—	—	—	—	—

except in the case of *S. dubius* which had previously not been recorded west of Port Alfred in the Eastern Cape (Fig. 19). It is here recorded from three other Cape localities including Cape Town.

The seasonal incidence of *Synolcus* species is summarised in Table 1. It appears that adults of all the species are primarily summer active.

Gibbasilus Londt

Gibbasilus Londt, 1986:2. Type-species: *Gibbasilus arenaceus* Londt, 1986, by original designation and monotypy.

Key to the species of *Gibbasilus*

- 1 Mane with pale setae both anteriorly and posteriorly; gonostylus elongate, much longer than gonocoxite **arenaceus** Londt, 1986
- Mane with pale coloured setae posteriorly only; gonostylus shorter, about the same length as gonocoxite 2
- 2 Eighth abdominal sternum of male with central elongate projection; aedeagus thick and highly convoluted **centrolobus** sp. n.
- Eighth abdominal sternum of male lacking central projection; aedeagus almost straight with gently downturned tip **brevicolis** sp. n.

Gibbasilus brevicolis sp. n.

Figs 3, 20–23.

Etymology: L. m. *brevis*—short, *colis*—penis. Refers to the relatively short aedeagus when compared with *G. arenaceus* Londt, 1986.

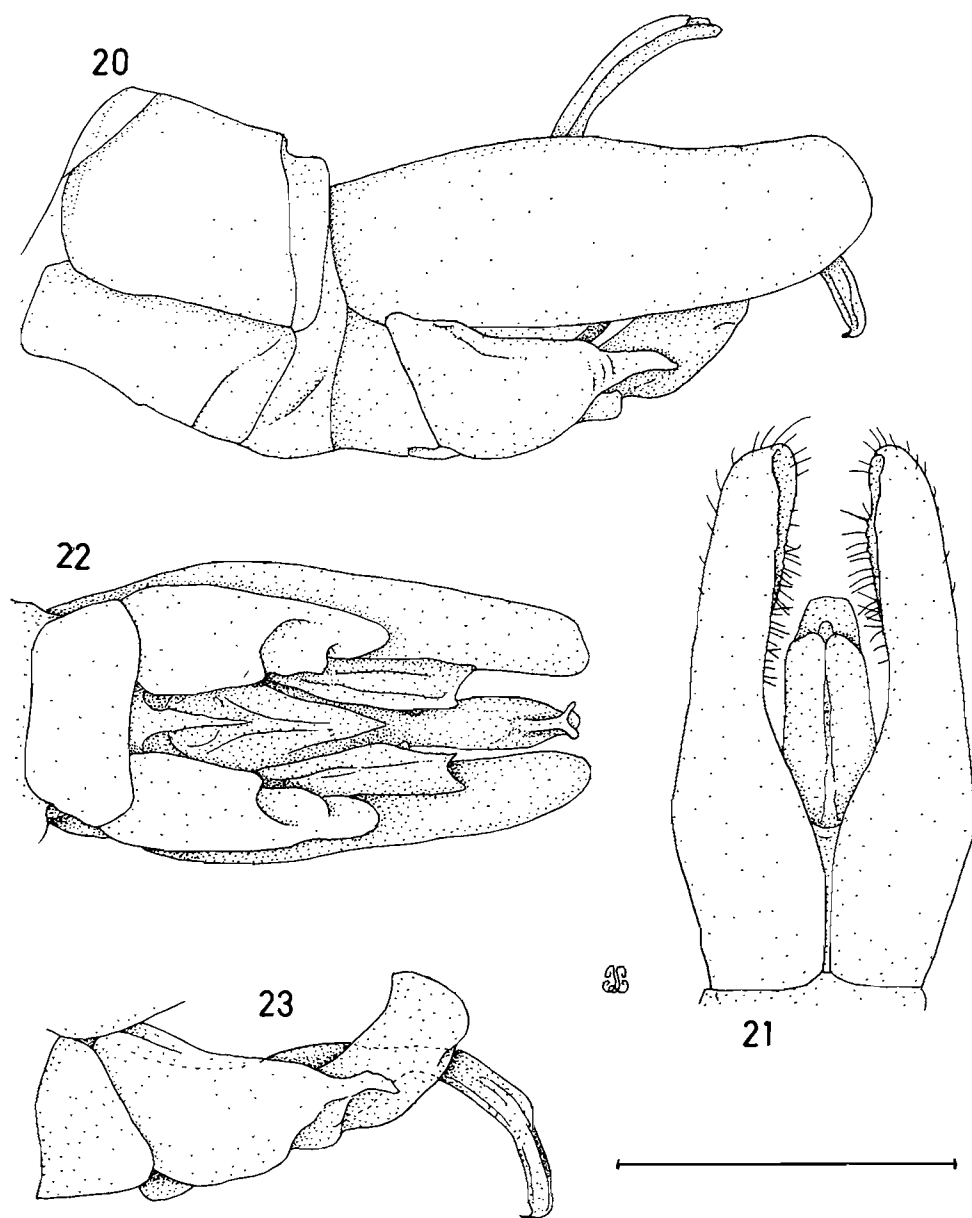
Description: Holotype ♂, SOUTH AFRICA, *Cape Province*: 'Pakhuis Pass [32°08'S:19°00'E], C.P. S.A.M., 9:1961 [ix.1961]' SAM.

Head. Scape and pedicel brown with black setae, flagellomere, microsegment and style dark red-brown to black. Proportionate lengths of antennal segments (segment one taken as 1,0) 1,00 0,64 1,25 0,14 0,89. Width of head across eyes to width of face as 10:2,1. Face dark red-brown, silver pruinose; mystax white centrally and laterally above lower facial margin, black laterally and extending above white bristles to antennal bases. Occipital setae mixed black and orange and proclinate dorsally; moderately long orange and black centrally; longish white ventrally. Proboscis and palpi dark red-brown.

Thorax. Pleura and mesonotum dark red-brown, silver pruinose; ktg s yellow; mtanepst s white. Dorsal bristles: acr black and forming moderately well-developed mane; dc black, about 8 pairs, better developed postsuturally; pprn s white, moderately long; 2 orange npl (1 black seta on right); 2 orange spal; 1 pal (black on left, orange on right); 2 black marginal scutellar bristles, disc and margin with fine white setae. Wing: 7,9 × 2,8 mm; venation as in Fig. 3, costal margin not expanded, c-r crossvein absent, maximum length to minimum breadth ratio of discal cell 15:1 (ie. not greatly constricted). Halteres brown-yellow. Legs: red-brown except for tibiae which are largely orange-yellow; bristles of hind femur orange-yellow, accompanied by a few long shiny white setae and many tiny

white setae; metathoracic coxae with 1 orange-yellow lateral bristle accompanied by many longish white setae.

Abdomen. Dark red-brown, terga uniform fine silver pruinose; sterna similar to terga; terga with 2-3 orange marginal bristles and long white (laterally) and short black setae (dorsally); sterna with long white setae. Genitalia as in Figs 20-23.



Figs 20-23. *Gibbasilus brevicolis* sp. n. holotype male genitalia. 20. Lateral. 21. Dorsal. 22. Ventral. 23. Aedeagus. Scale = 1 mm.

Paratypes. None. ♀ unknown.

Remarks: *G. brevicolis* can be considered congeneric with the type-species, *G. arenaceus*, except that the mesonotum is not as obviously humped and both the aedeagus and gonostyli are far shorter.

***Gibbasilus centrolobus* sp. n.**

Figs 4, 24–27.

Etymology: *L. centrum*—centre, *lobus*—projection or protuberance. Refers to the unusual central projection found on the eighth sternum.

Description: Holotype ♂, SOUTH AFRICA, *Cape Province*: 'Clanwilliam [32°11'S:18°54'E], ix.1928, Dr Brauns'. NM Type No. 17.

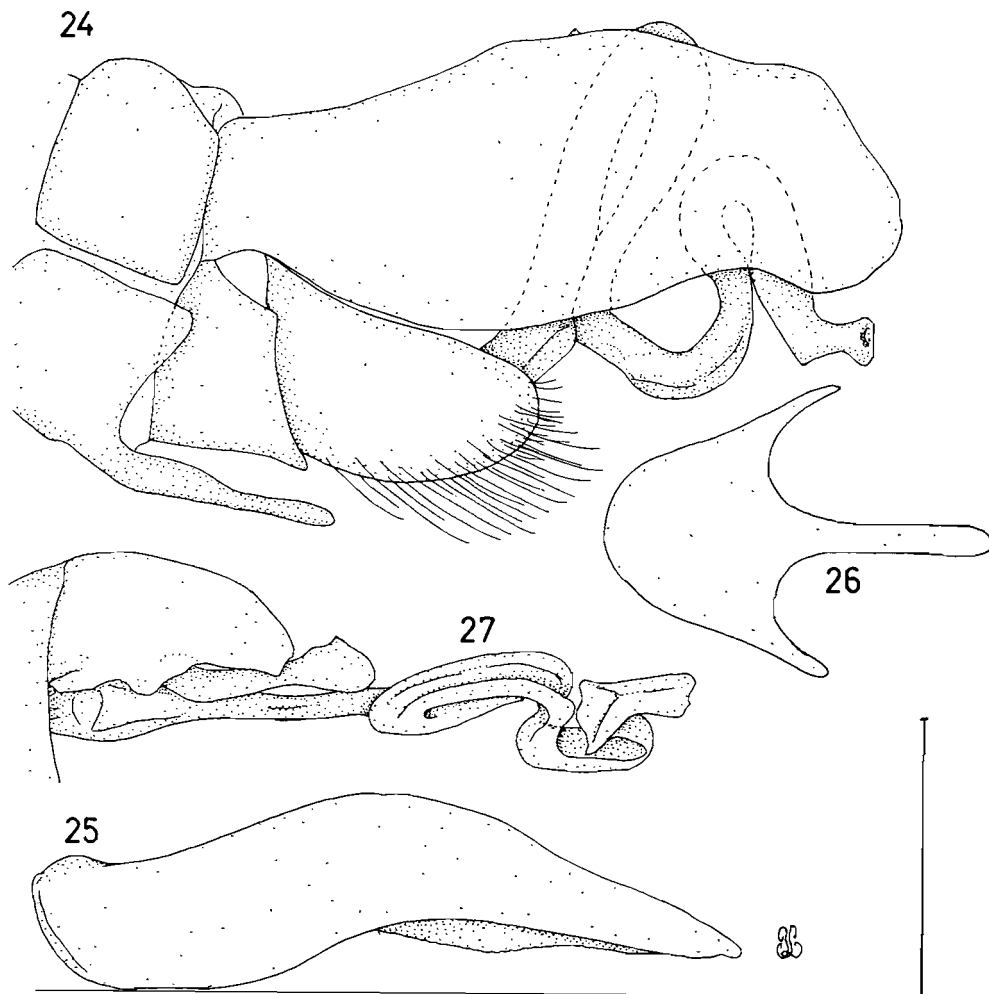
Head. Antennae uniform black with black bristles and setae. Proportionate lengths of antennal segments (segment one taken as 1,0) 1,00 0,68 1,31 0,24 0,88. Width of head across eyes to width of face as 10:2,2. Face black, silver pruinose; mystax mainly black except for row above lower facial margin which are yellow. Occipital setae mixed black and proclinate dorsally; moderately long dark red-brown and yellow centrally; longish white ventrally. Proboscis and palpi dark red-brown.

Thorax. Pleura and mesonotum dark red-brown, silver pruinose; ktg s and mta-nepst s brown-yellow. Dorsal bristles: acr black and forming moderately well-developed mane; dc black, about 9 pairs, better developed postsuturally; pprn s yellow, moderately long; 2 yellow-brown npl (1 black seta on left); 2 black spal; 1 black pal; 3 black marginal scutellar bristles, disc and margin with fine white setae. Wing: 7,7 × 2,8 mm; venation as in Fig. 4, costal margin slightly expanded, c-r crossvein absent, maximum length to minimum breadth ratio of discal cell 19:1 (ie. somewhat constricted centrally). Halteres brown-yellow. Legs: red-brown except for tibiae which are largely orange-yellow proximally; bristles of hind femur orange-yellow, accompanied by a few long yellow-white setae and many tiny yellow-white setae; metathoracic coxae with 1 orange-yellow lateral bristle accompanied by many longish yellow-white setae.

Abdomen. Dark red-brown, terga uniform fine silver-gold pruinose; sterna similar to terga; terga with 3–4 orange marginal bristles and long white (laterally) and short black setae (dorsally on distal segments); sterna with long brown-yellow setae; S8 with central elongate projection. Genitalia as in Figs 24–27. Aedeagus long, thick and convoluted.

Paratypes. None. ♀ unknown.

Remarks: The inclusion of *G. centrolobus* in *Gibbasilus* is provisional. Londt (1986) presents a key to apocleine genera and a list of key features of each of these. *G. centrolobus* agrees with the original concept of the genus in some points but not in others, and appears to have affinities with *Synolcus* species. The costal area is slightly expanded whereas the other two species of *Gibbasilus* do not have any trace of expansion. The discal cell is somewhat constricted at midlength but not quite as in *Synolcus*. The mane is well developed and humped like the other *Gibbasilus* species, but the male genitalia hardly resemble the other two species



Figs 24–27. *Gibbasilus centrolobus* sp. n. holotype male genitalia. 24. Lateral. 25. Dorsal aspect of right epandrial lobe. 26. Ventral aspect of S8. 27. Ventral aspect showing gonostylus and aedeagus. Scale = 1 mm.

presently placed in this genus. For the moment, and until female material is available, I tentatively place *centrolobus* in *Gibbasilus* as it appears to be most closely related to species in this genus.

New Natal Museum records of *Gibbasilus*

Gibbasilus arenaceus Londt, 1986.

New Record: SOUTH AFRICA, *Cape Province*: 2 ♂, 'Clanwilliam, 32.10S 18.53E, 30.ix.1986, M. W. Mansell & J. H. Hoffmann', 'Collected at light'.

Remarks: The new locality fits in well with the known distribution of this species. Asilidae are not usually attracted to light and so it is interesting to note that the two specimens listed above were collected at light.

DISCUSSION

Gibbasilus appears to be restricted to the southern part of the Desert and Poor Steppe climatic region of southern Africa. Nothing is known of the habits of any of the species. The seasonal incidence of all three species is summarised in Table 1. It appears that adults are active in the early summer months of September, October and November.

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